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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,653	12/31/2001	David A. Wyatt	42390.P13868	9274

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EXAMINER

NGUYEN, VAN H

ART UNIT PAPER NUMBER

2194

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,653

Applicant(s)

WYATT, DAVID A.

Examiner

VAN H. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☒ **WILLIAM THOMSON**
SUPERVISORY PATENT EXAMINER
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. Please note that the examiner formerly in charge of examining this application, SUE LAO, is no longer in Art Unit 2194. Examiner VAN H. NGUYEN is now in charge of examining this application. Please update future correspondence accordingly.
2. This action is in response to the amendment and the Terminal disclaimers filed September 13, 2005. Claims 1-12 are presented for examination.
3. The 35 U.S.C. 112 and 35 U.S.C. 101 rejections have been overcome by the amendment.
4. The prior double patenting rejections have been overcome by the Terminal Disclaimers.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Abbondanzio et al.** in view of **Sankaranarayan et al.**

As to claim 1, Abbondanzio teaches a computer-implemented method, comprising:
maintaining (Hareware Resource Manager HRM) a global resource namespace
(Hardware Namespace, fig. 3) including a list of a plurality child (parent device/bus entry) and

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parent resource (child device/bus entry) objects and a representation of the relationships (hierarchical, fig. 3) among the child and parent resource objects, and

attaching (add/enumerate) an additional child resource object (entry for child device/bus) to one of the plurality of parent resource objects (parent device/bus). See additionally, col. 3, line 66 - col. 4, line 37; and col.5, line 53-col.6, line 65.

Abbondanzio further teaches parent resource objects represent resource producers that including physical resources (I/O port address, I/O memory address, etc, col. 4, line 60 - col. 6, Line 29), but does not specifically teach virtual resources.

Sankaranarayan teaches resource objects and management, wherein resource objects represent virtual resources (bandwidth) in addition to physical resources (hardware device, ports). See col. 4, lines 38-47; col. 4, line 65 -col. 5, line 7.

Therefore, it would have been obvious to include virtual resources into the resources represented by the parent resource objects of Abbondanzio. One of ordinary skill in the art would have been motivated to combine the teachings of Abbondanzio and Sankaranarayan because this would have provided resource management and allocation to different users/applications (col. 2, lines 60-67, col. 4, lines 38-64).

As to claim 2, Abbondanzio teaches determining whether the parent resource object exists within the global resource namespace (obtain information about parent bus, col. 5, lines 56-62).

As to claim 3, Abbondanzio teaches determining whether the parent resource object is available (determine whether resource available in parent bus resource pool, col. 6, lines 30-36).

As to claim 4, Abbondanzio teaches determining whether conflicts exist that would prevent the child resource object from being attached to the parent resource object (determine conflict free range, col. 6, lines 1-29).

As to claims 5, 6, Abbondanzio as modified by Sankaranarayan teaches (Sankaranarayan) calculating resource requirements of a child resource object /device (bandwidth requirement, col. 4, line 65 - col. 5, line 7) and determining whether sufficient parent resource is available to satisfy the requirements of the child resource page 7 object (determine if all requests met would exceed the available bandwidth, col. 4, line 65 - col. 5, line 7).

As to claims 7-12, these are program product claims of claims 1-6, thus note the discussion of claims 1-6, respectively, for rejections. Additionally, Abbondanzio teaches the claimed wherein the child resource objects represent resource consumers and the parent resource objects represent resource producers (col. 3, line 66 - col. 4, line 37; and col.5, line 53-col.6, line 65) as amended to independent claim 7.

Response to Arguments

6. Applicant's arguments filed September 13, 2005 have been fully considered but they are not persuasive.

In the remarks, Applicant argued in substance that Sankaranarayan and Abbondanzio fail to disclose parent resource objects representing resource producers that include physical and virtual resources.

In response, Sankaranarayan's teaching "a resource is a finite quantity of a computing

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component in the computer system that is utilized to perform various tasks or functions.

Examples of resources include hardware devices, ports, CPU processing, memory, USB bandwidth, network bandwidth, software modules, and so forth. A resource may be a physical hardware quantity (e.g., CPU, USB bandwidth, network bandwidth) or an abstract quantity (e.g., virtual memory, audio volume)" [col.4, lines 38-47] reads-on the limitations as claimed by Applicant..

Contact Information

7. Any inquiry or a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner can also be reached on alternative Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM THOMSON can be reached at (571) 272-3718.

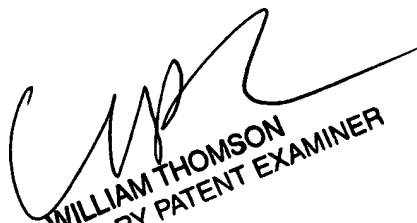
The fax phone number for the organization where this application or proceeding is assigned is **(571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner for patents
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Alexandria, VA 22313-1450

Van H. Nguyen


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER